Figure 1

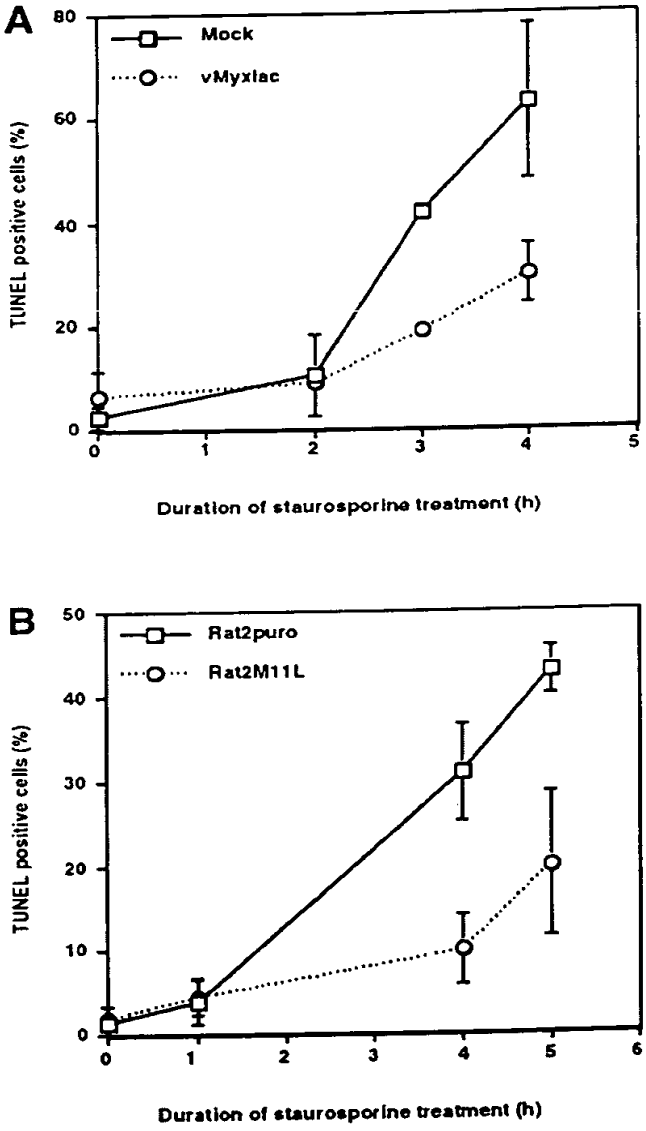

A
Mock
vMyxlac
TUNEL positive cells (%)
Duration of staurosporine treatment (h)
B
Rat2puro
Rat2M11L
TUNEL positive cells (%)
Duration of staurosporine treatment (h)

Figure 1 (con't)

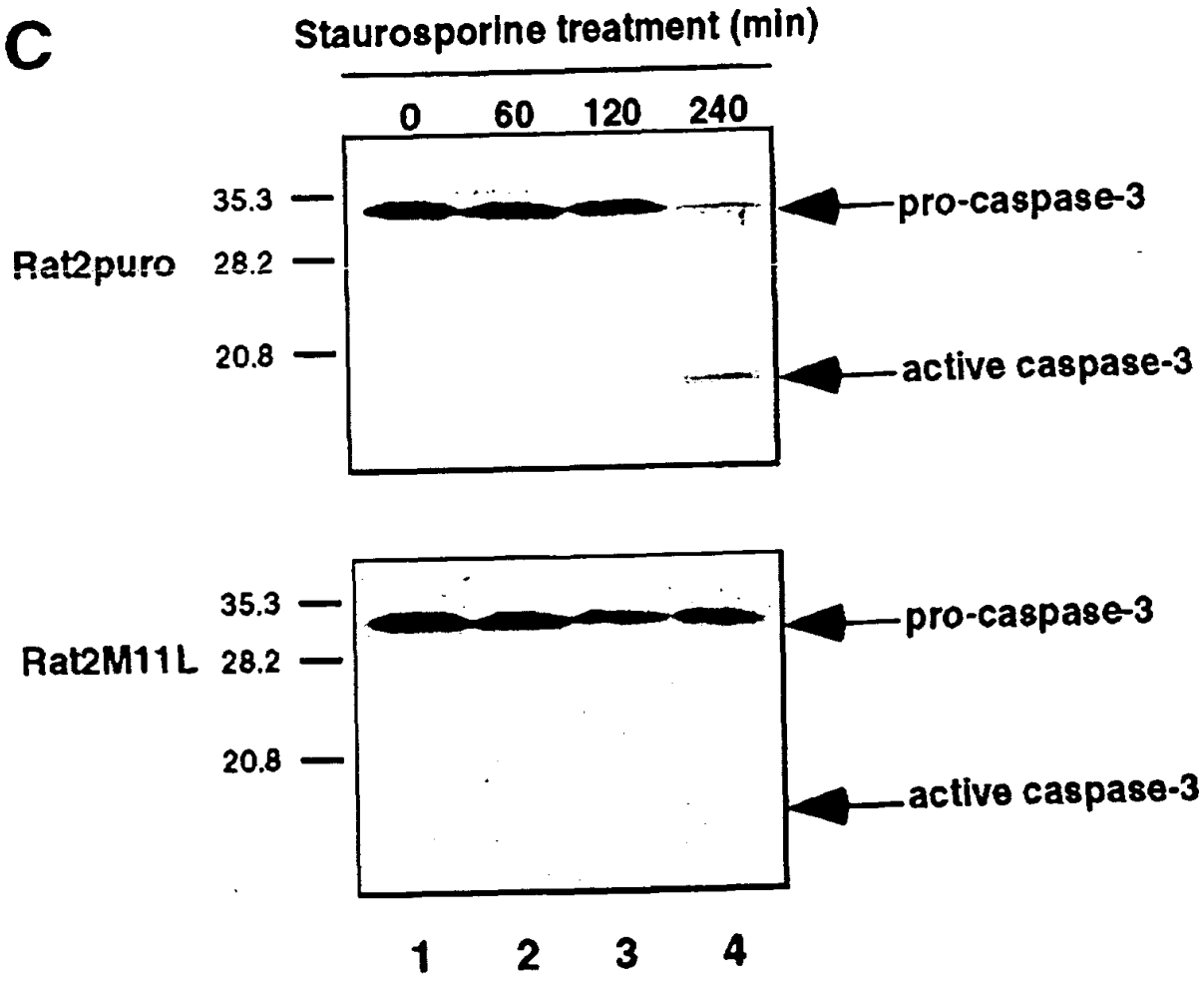
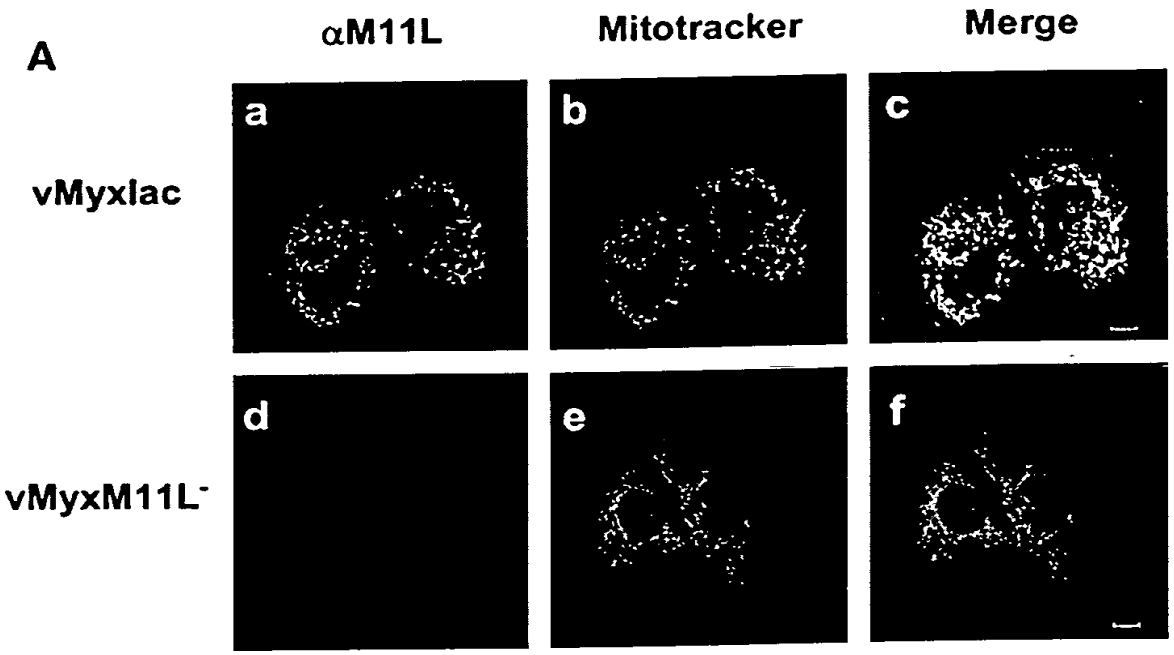


Figure 2


A
αM11L
Mitotracker
Merge
a
b
c
vMyxlac
d
e
f
vMyxM11L-

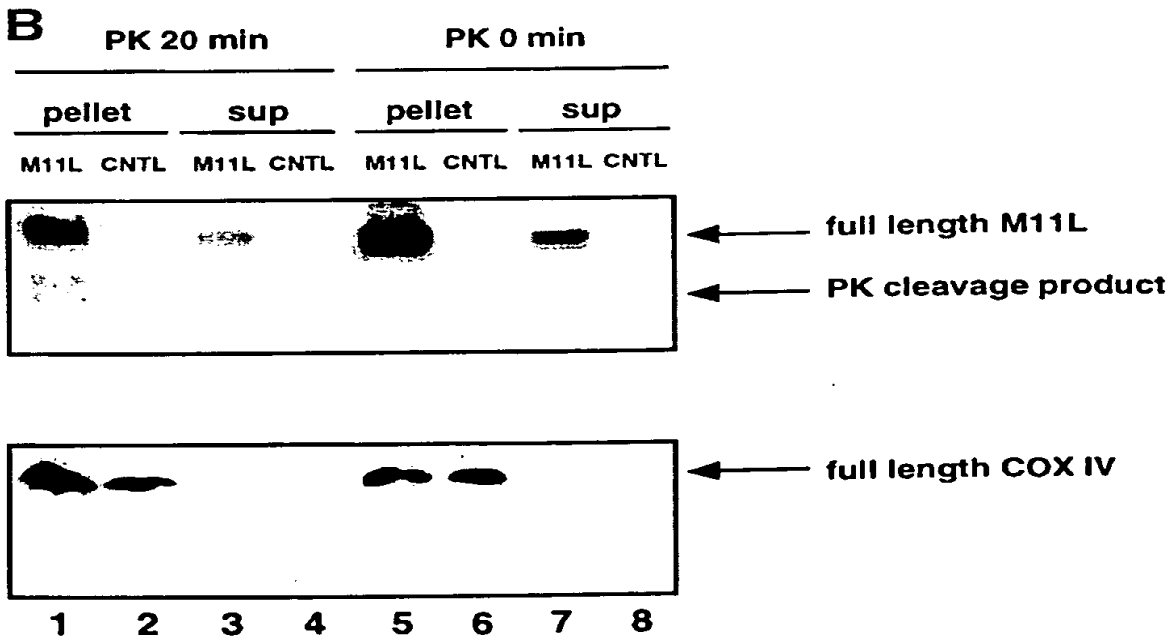

B
PK 20 min
PK 0 min
pellet
sup
pellet
sup
M11L CNTL M11L CNTL M11L CNTL M11L CNTL
full length M11L
PK cleavage product
full length COX IV
1 2 3 4 5 6 7 8

Figure 3

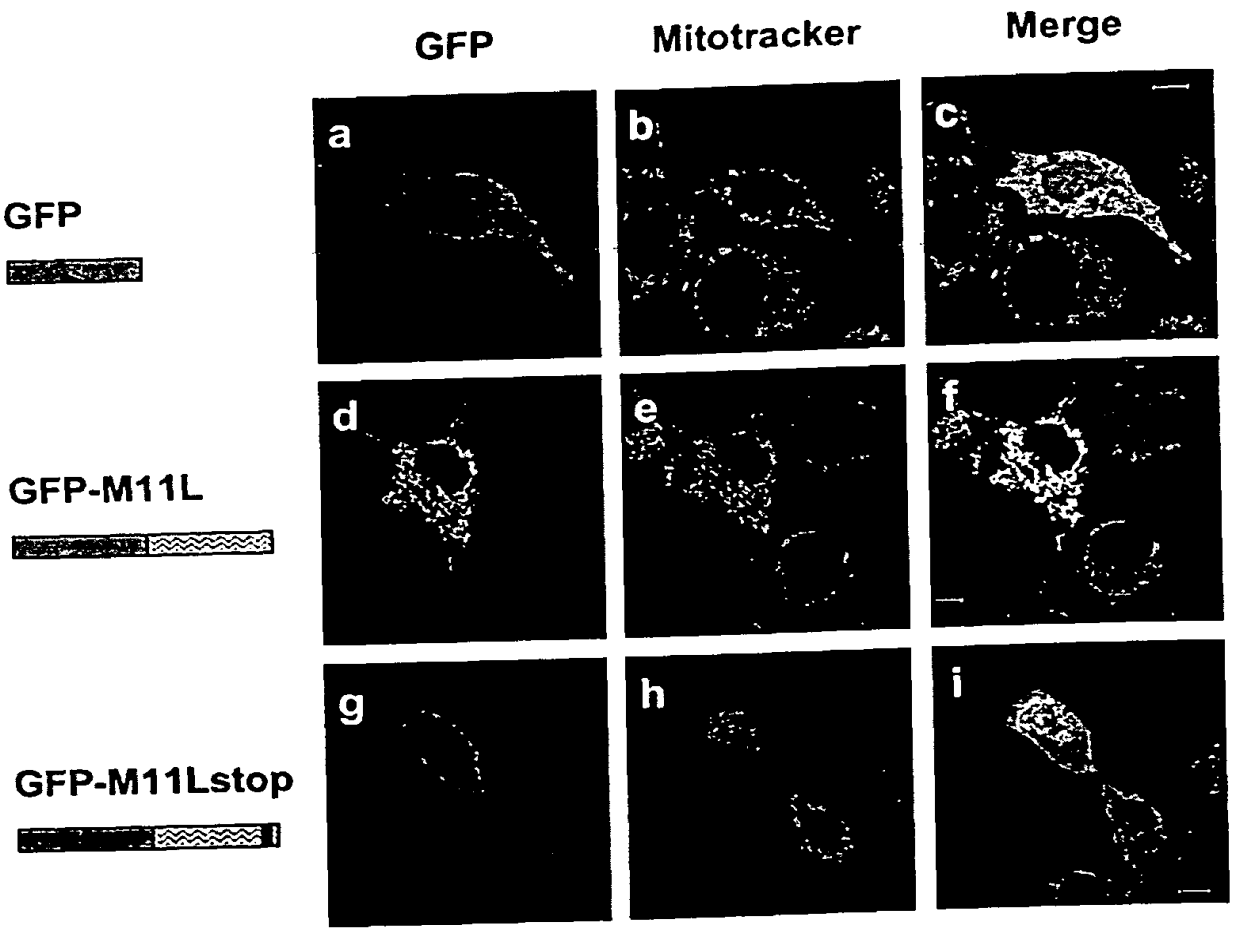
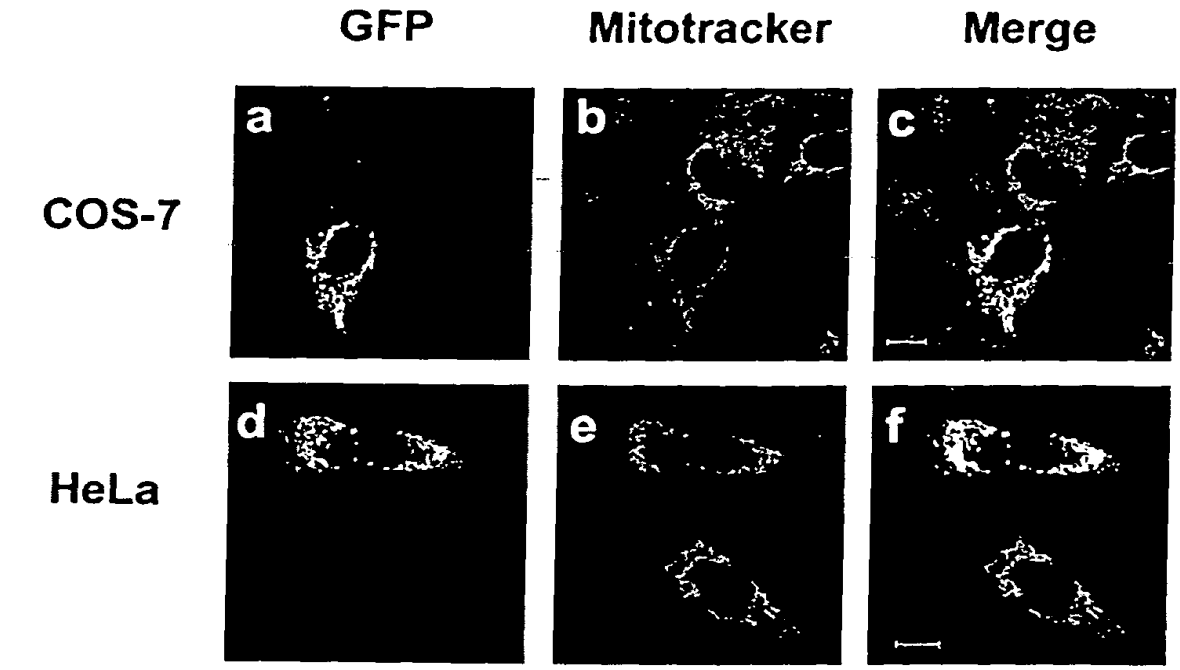


Figure 4


GFP
Mitotracker
Merge
COS-7
HeLa
a
b
c
d
e
f

GFP
mt
mt = KISVYLTAAVVGFVAYGILKWYRGT
+
+
+

Figure 5

					domain is a mitochondrial targeting signal	domain is required for function
M11L	K	ISVYLTAAVVGFVAYGIL	K	WYRGT	Y	Y
Bcl-2	K	TLLSLALVGACITLGAYLS	K	K	Y	Y/N
Bcl-X_L	R	WFLTGMTVAGVVLLGSLFS	R	K	Y	Y/N
Boo/Diva	R	LLIQAFLSGFFATAIFFIW	K	RL	?	?
CED-9	R	WSMIGAGVTAGAIGIVGVVVCG	R	MMFSLX	?	?
BHRF-1	K	FSWTLFLAGLTLSLLVICSYLFIS	R	GRK	Y	Y
KSbcl-2	R	MTALLGSIALLATILAAVAMS	R	R	?	?
Nip3	K	VFLPSLLLSHLLAIGLGIYIG	R	RLTTSTSTF	Y	Y
Nix	K	VFIPSLFLSHVLALGLGIYIG	K	RLSTPSA	Y	Y
	positive charge	18-24 aa putative membrane-spanning domain	positive charge	positive tail		

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Figure 6

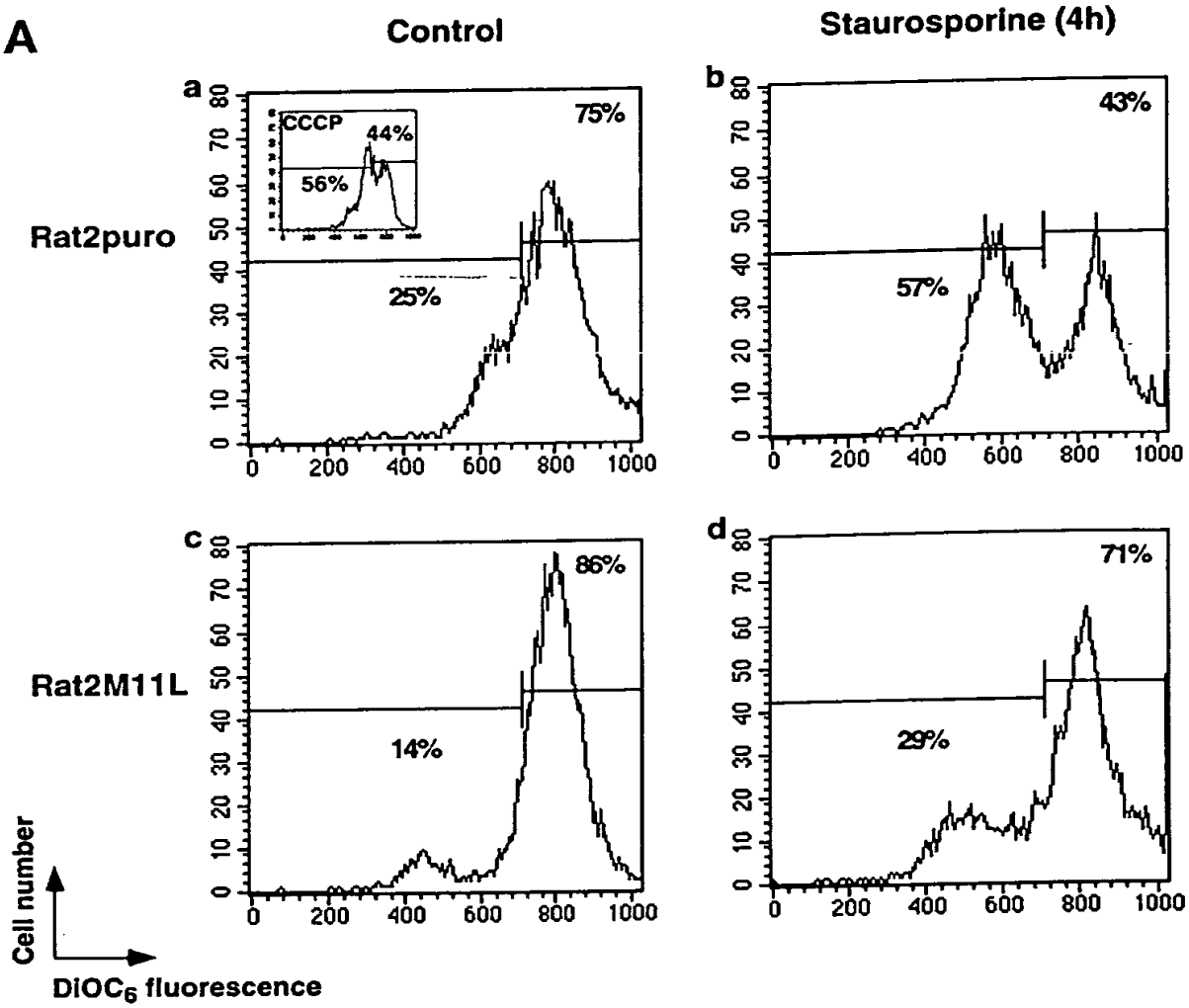

A
Control
Staurosporine (4h)
a
b
c
d
Rat2puro
Rat2M11L
CCCP
44%
56%
75%
25%
43%
57%
86%
14%
71%
29%
Cell number
DiOC6 fluorescence

Figure 6 (con't)

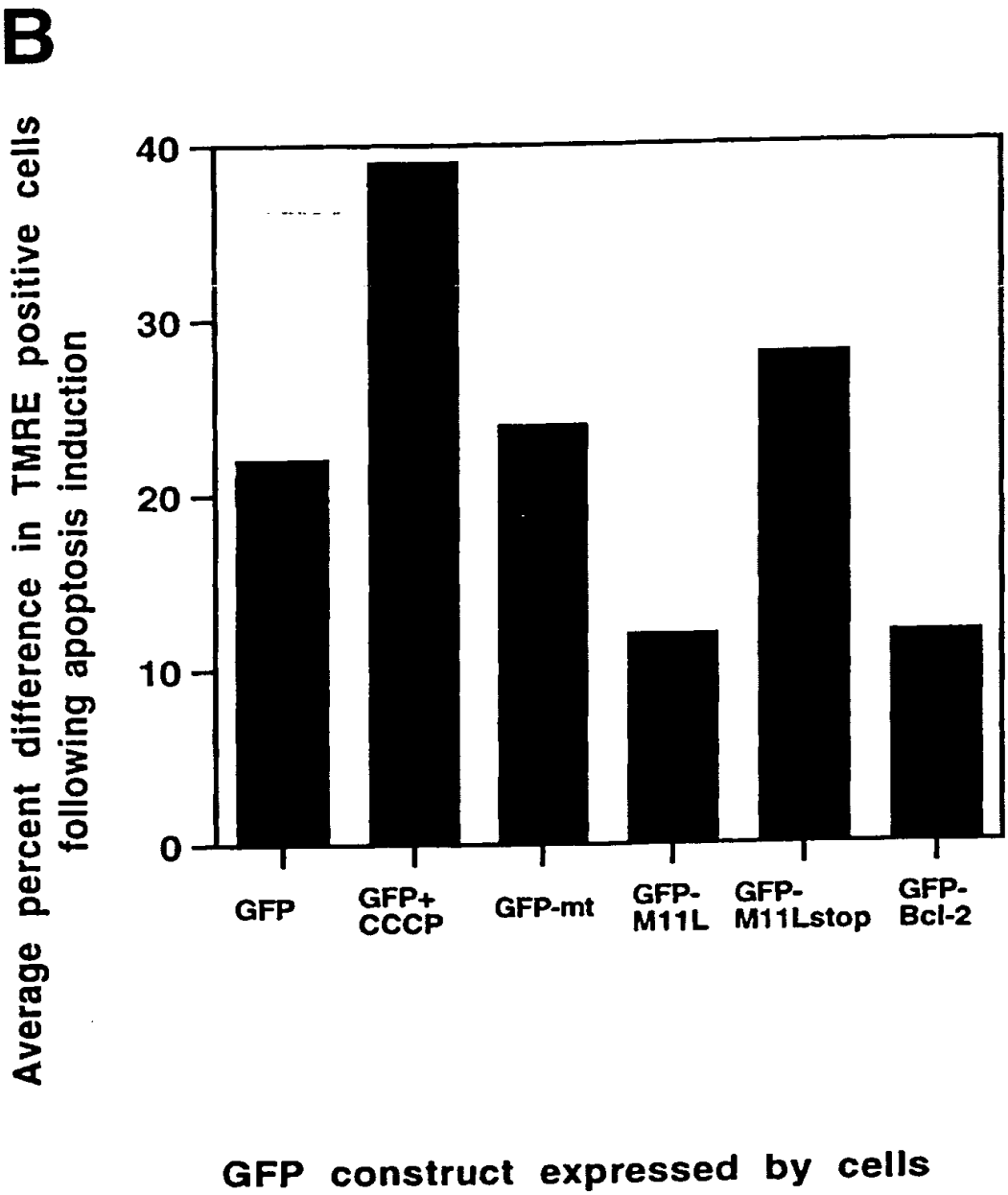
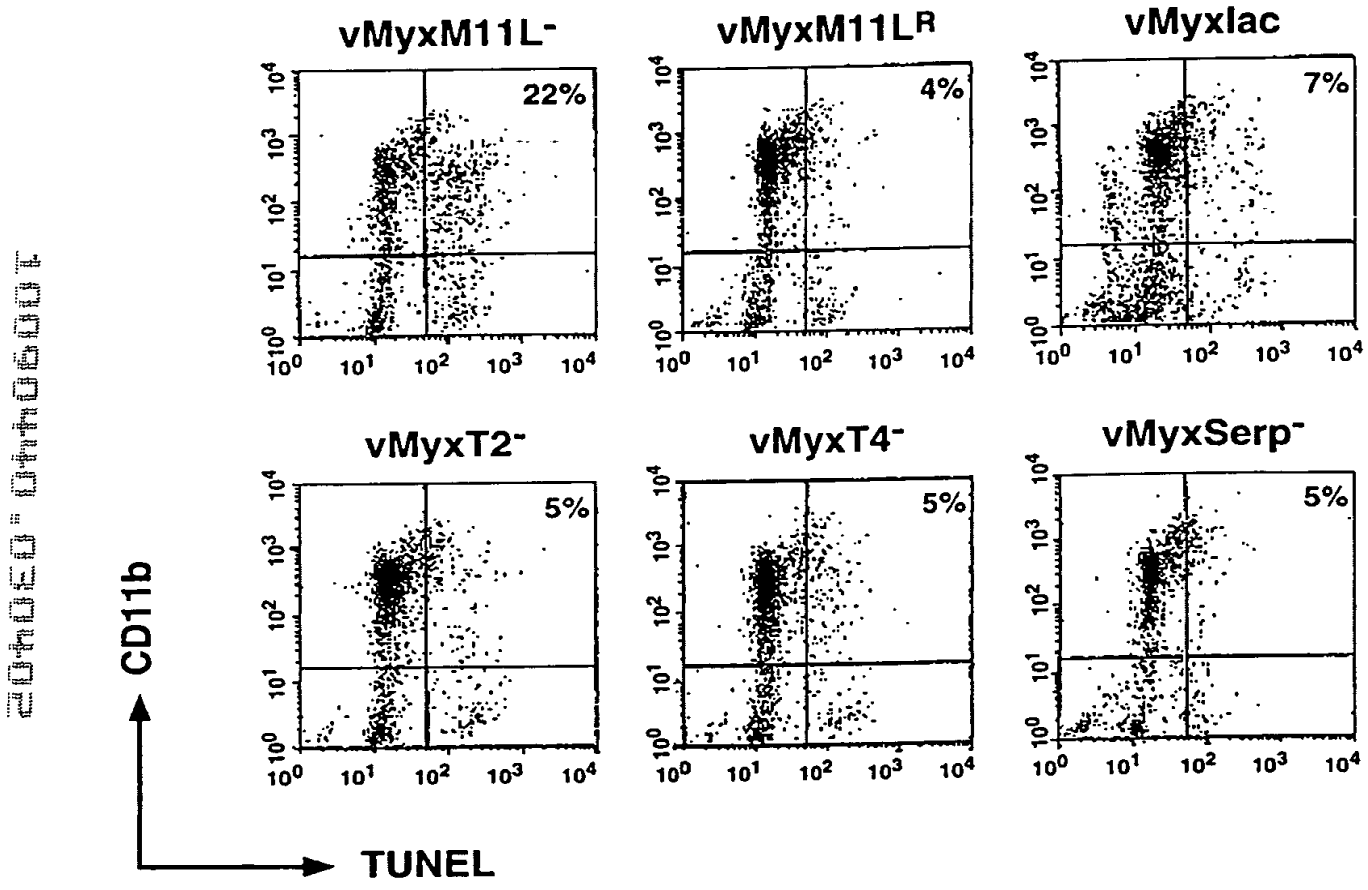


Figure 7


vMyxM11L-
22%
vMyxM11LR
4%
vMyxlac
7%
vMyxT2-
5%
vMyxT4-
5%
vMyxSerp-
5%
CD11b
TUNEL

20th0E0 · 0th0600T

Process to Identify M11L-interacting Proteins

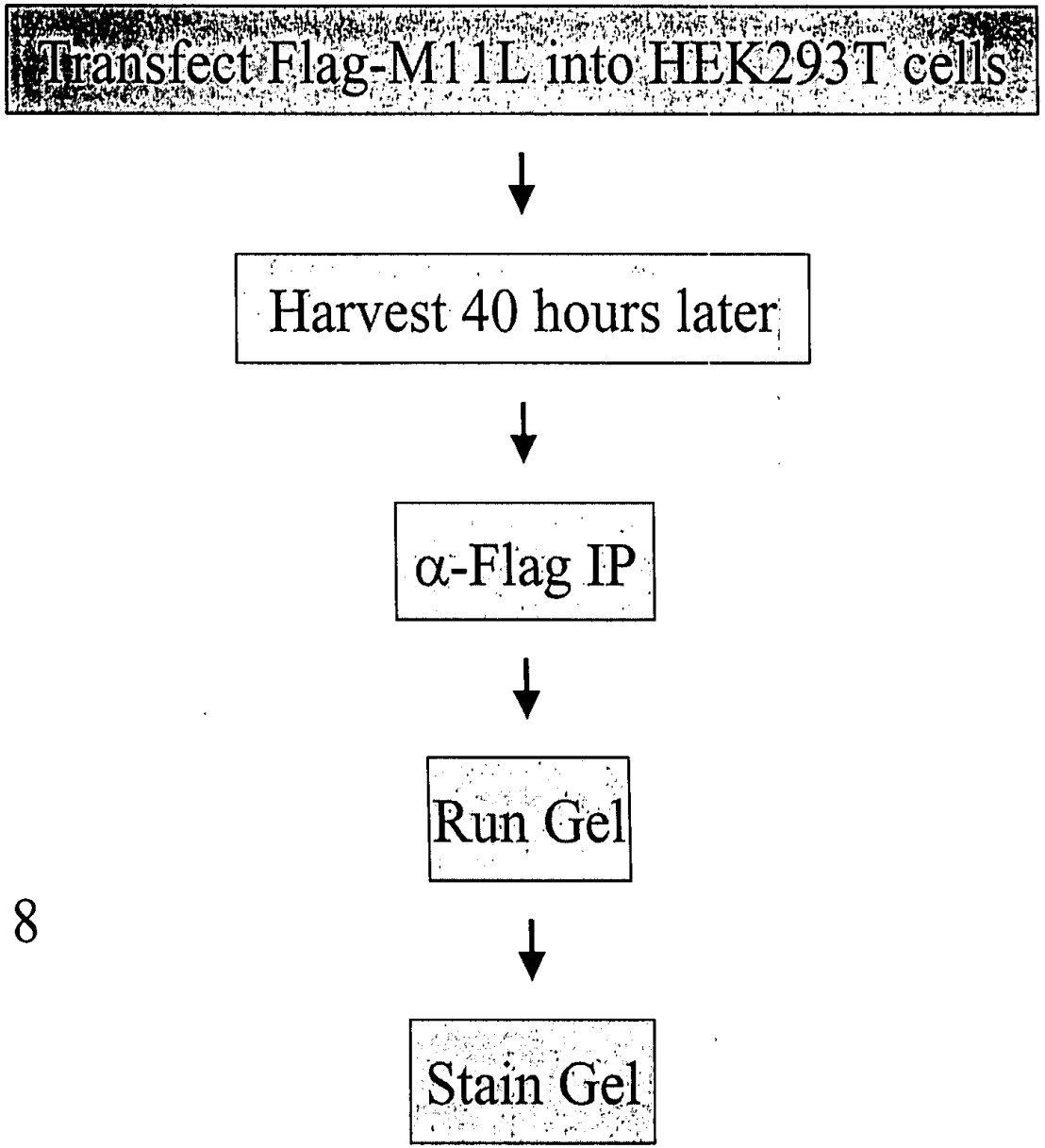
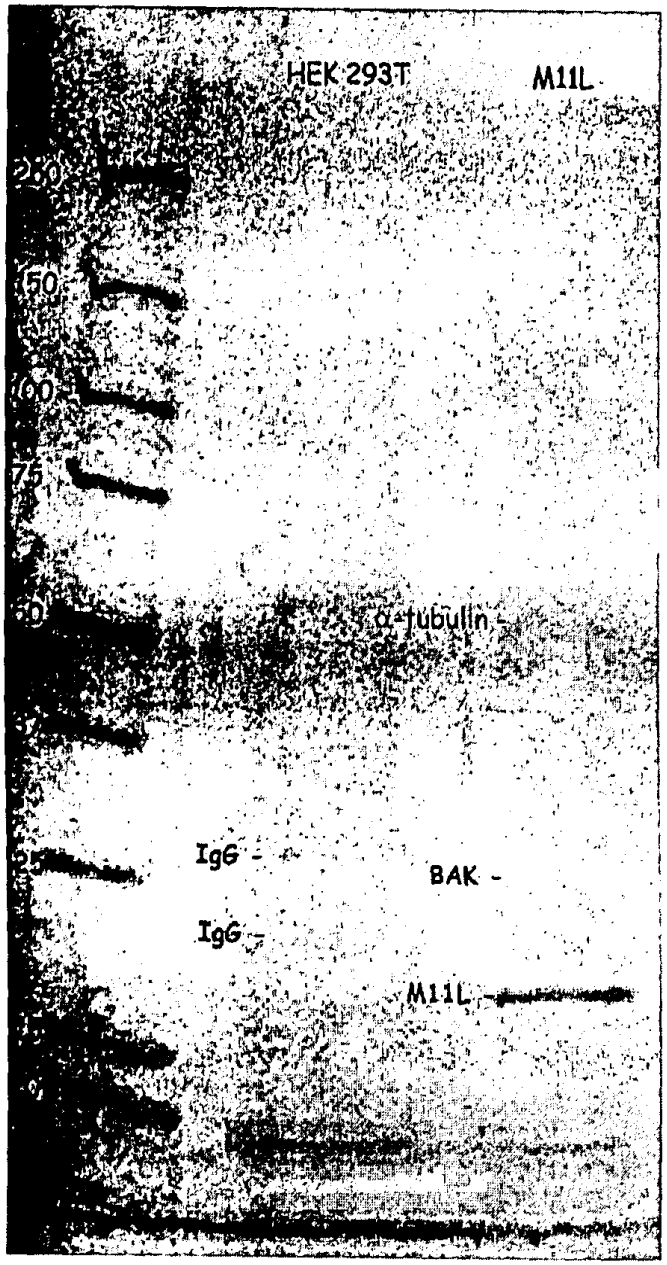


Figure 8


HEK 293T
M11L
α-tubulin
IgG
BAK
IgG
M11L

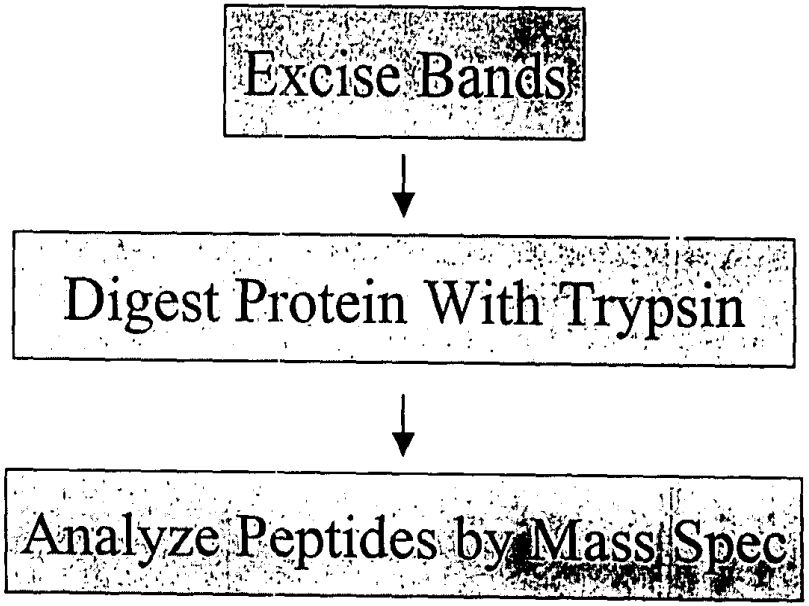

Excise Bands
Digest Protein With Trypsin
Analyze Peptides by Mass Spec

Figure 9

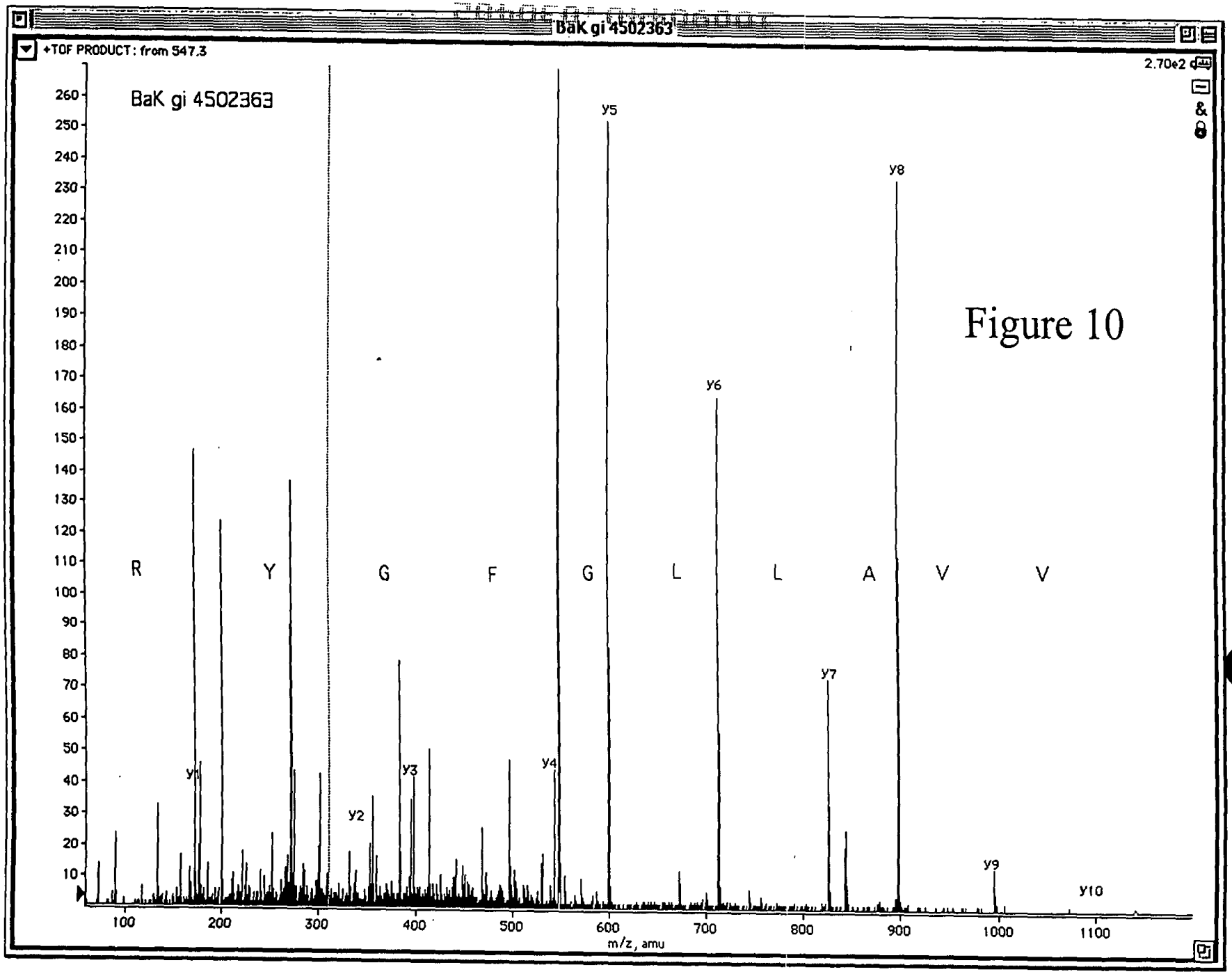

BaK gi 4502363
+TOF PRODUCT: from 547.3
2.70e2
BaK gi 4502363
R Y G F G L L A V V
y1
y2
y3
y4
y5
y6
y7
y8
y9
y10
m/z, amu

Figure 10

20th0E0 - 0th06001

Bak, a Bcl2 family member, was identified by Mass Spec

MASGQGPGPPRQECGEPALPSASEEQVAQD

TEEVFRSYVFYRHQQEQEAEGVAAPADPEM

VTLPLQPSSTMGQVGR**QLAIIGDDINR**RYD

SEFQTMLQHLQPTAENAYEYFTK**IATSLFE**

SGINWGRVVALLGFGYRLALHVYQH

GLTGFLGQVTRFVVDFMLHHCIARWIAQRGGWVA

ALNLGNGPILNVLVVLGVVLLGQFVVRRFFKS

Figure 11